

Appl. Serial No.: 10/698,299
Amdt. dated Sept. 14, 2005
Reply to Office Action of June 14, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (cancelled)

Claim 2 (currently amended): The device of claim [[1]] 16 wherein the first switch includes a discrete switching device coupled to each of the selectable output terminals.

Claim 3 (original): The device of claim 2 wherein each discrete switching device includes one or more transistors.

Claim 4 (original): The device of claim 3 wherein the transistor is a discrete transistor.

Claim 5 (original): The device of claim 3 wherein the transistor is formed in a semiconductor substrate.

Claim 6 (currently amended): The device of claim [[1]] 16 wherein the second switch includes a discrete switching device coupled to each of the selectable input terminals.

Claim 7 (original): The device of claim 6 wherein each discrete switching device includes one or more transistors.

Claim 8 (original): The device of claim 7 wherein the transistor is a discrete transistor.

Claim 9 (original): The device of claim 7 wherein the transistor is formed in a semiconductor

substrate.

Claim 10 (currently amended): The device of claim [[1]] 16 wherein the input signal is an RF signal.

Claim 11 (currently amended): The device of claim [[1]] 16 wherein the resistive devices are discrete resistors.

Claim 12 (currently amended): The device of claim [[1]] 16 wherein the resistive devices are formed with resistive material deposited on one of a semiconductor substrate, a dielectric substrate, and an insulating substrate.

Claim 13 (currently amended): The device of claim [[1]] 16 wherein the resistive array is a planar resistive array.

Claim 14 (original): The device of claim 13 wherein the planar resistive array is formed with resistive material deposited on one of a semiconductor substrate, a dielectric substrate, and an insulating substrate.

Claim 15 (currently amended): The device of claim [[1]] 16 further comprising:
a first shunt resistance for coupling the input terminal of the first switch to a ground; and
a second shunt resistance for coupling the output terminal of the second switch to the ground.

Claim 16 (currently amended): A series variable attenuation device comprising:
a resistive array having two or more input nodes, two or more output nodes, and
two or more resistive devices for coupling the input nodes and the output nodes,

a first switch having an input terminal and two or more selectable output terminals; wherein the input terminal is configured to receive an input signal and the two or more selectable output terminals are coupled to the two or more input nodes of the resistive array; and

a second switch having two or more selectable input terminals and an output terminal; wherein the output terminal is configured to provide an attenuated output signal and the two or more selectable input terminals are coupled to the two or more output nodes of the resistive array;

wherein the output terminal selected on the first switch and the input terminal selected on the second switch varies the resistance seen by the input signal, and the values of the two or more resistive devices are configured to allow for substantially-uniform attenuation steps of the input signal; and

~~The device of claim 1~~ wherein at least one of the resistive devices of the resistive array connects two of the input nodes of the resistive array.

Claim 17 (currently amended): The device of claim [[1]] 16 wherein at least one of the resistive devices of the resistive array connects one of the input nodes to one of the output nodes of the resistive array.

Claim 18 (currently amended): The device of claim [[1]] 16 wherein the first and second switches are reflective switches.

Claim 19 (cancelled)

Claim 20 (currently amended): The device of claim [[19]] 27 wherein the first switch

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includes a discrete switching device coupled to each of the selectable output terminals.

Claim 21 (original): The device of claim 20 wherein each discrete switching device includes one or more transistors formed in a semiconductor substrate.

Claim 22 (currently amended): The device of claim [[19]] 27 wherein the second switch includes a discrete switching device coupled to each of the selectable input terminals.

Claim 23 (original): The device of claim 22 wherein each discrete switching device includes one or more transistors formed in a semiconductor substrate.

Claim 24 (currently amended): The device of claim [[19]] 27 wherein the input signal is an RF signal.

Claim 25 (currently amended): The device of claim [[19]] 27 wherein the resistive array is a planar resistive array.

Claim 26 (original): The device of claim 25 wherein the planar resistive array is formed with resistive material deposited on one of a semiconductor substrate, a dielectric substrate, and an insulating substrate.

Claim 27 (currently amended): A dual-switch shunt variable attenuation device comprising:

a resistive array having two or more input nodes, two or more output nodes, and two or more resistive devices for coupling the input nodes and the output nodes,
a first switch having an input terminal and two or more selectable output terminals; wherein the input terminal is configured to receive an input signal and the two or more selectable output terminals are coupled to the two or more input nodes of the

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resistive array; and

a second switch having two or more selectable input terminals and an output terminal; wherein the output terminal is coupled to a ground and the two or more selectable input terminals are coupled to the two or more output nodes of the resistive array;

wherein the output terminal selected on the first switch and the input terminal selected on the second switch varies the resistance seen by the input signal, and the values of the two or more resistive devices are configured to allow for substantially-uniform attenuation steps of the input signal; and

~~The device of claim 19~~ wherein at least one of the resistive devices of the resistive array connects two of the input nodes of the resistive array.

Claim 28 (currently amended): The device of claim ~~[[19]]~~ 27 wherein at least one of the resistive devices of the resistive array connects one of the input nodes to one of the output nodes of the resistive array.

Claims 29-60 (withdrawn)